

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A device for enabling network connectivity with a network service provider, the device comprising:
 - a wireless transceiver;
 - an antenna coupled to the wireless transceiver; and
 - a switch coupled to the wireless transceiver and to a wireline network, the switch exchanging data with the network service provider over the wireline network during normal operation and also exchanging data with the network service provider via the wireless transceiver when connectivity is lost on the wireline network;

wherein the wireless transceiver is configured to relay data from another wireless transceiver that has lost connectivity to the wireline network due to a problem in a residence or place of business of a network subscriber associated with said another wireless transceiver, said another wireless transceiver being connected to said wireless transceiver through no more than one other wireless transceiver that has also lost connectivity to the wireline network when said data is being relayed, said another and said other wireless transceivers having been wireline-connected to the wireline network during normal operation.

2. (canceled)

3. (previously presented) The device of claim 1, wherein the wireless transceiver relays the data from the other wireless transceivers that have lost connectivity by forwarding data units received from the other wireless transceivers through the switch and to the wireline network.

4. (canceled)

5. (original) The device of claim 1, wherein the device is physically located at a location of a subscriber of the network service provider.

6. (original) The device of claim 1, wherein the wireless transceiver operates in accordance with IEEE 802.11 standards.

7. (original) The device of claim 1, wherein the wireline network includes a fiber network.

8. (original) The device of claim 1, wherein the wireline network includes coaxial cables.

9. (original) The device of claim 1, wherein the switch monitors a failed connection state of the wireline network for renewed connectivity of the wireline network and resumes communication over the wireline network when the wireline connection is renewed.

10. (previously presented) A method performed by a network subscriber comprising:
establishing wireline-connectivity to a network service provider over a wireline
connection as normal connectivity to premises of said network subscriber;
monitoring the wireline connection for failure; and
when the wireline connection fails due to a problem inside said premises of said network
subscriber, automatically establishing a substitute wireline connection to the network service
provider over a wireless connection relayed from the network subscriber through more than one
other network subscriber, one said more than one other network subscriber having separate
normal wireline-connectivity to the network service provider, said automatically establishing
including:

(a) providing wireless-connectivity directly between a first transceiver associated
with said network subscriber and a second transceiver associated with a network subscriber other
than said one said more than one other network subscriber, and

(b) providing wireless connectivity directly between said second transceiver and a
third transceiver associated with said one said more than one other network subscriber.

11-12. (canceled)

13. (original) The method of claim 10, wherein the wireless connection is formed
in accordance with IEEE 802.11 standards.

14. (original) The method of claim 10, wherein automatically establishing a
connection to the network service provider includes wirelessly broadcasting a

message requesting a relay to the network service provider by the one or more other network subscribers.

15. (original) The method of claim 14, wherein automatically establishing a connection to the network service provider further includes authorizing the subscriber to use the network.

16. (original) The method of claim 14, wherein the relaying one or more other network subscribers forward data received wirelessly from the network subscriber over a second wireless connection to the network service provider.

17. (original) The method of claim 10, further comprising:
monitoring a failed connection state of the wireline connection for renewed connectivity of the wireline connection; and
disconnecting from the wireless connection when the wireline connection is renewed.

18. (previously presented) A method for providing fallback network connectivity to a network service provider for one of a plurality of network nodes, said method comprising:
providing wireline-connectivity as primary network connectivity to said service provider for each of said network nodes; and
providing backup network connectivity to said one node for a network subscriber having a residence or place of business, said backup connectivity being provided when said wireline

connectivity for said one node is lost due to a problem in said residence or said place of business via a wireless network by wirelessly relaying data directly from a first transceiver in said one node to a second transceiver in another node in the plurality of network nodes which had an active wireline connection to the network service provider, said second transceiver being wirelessly connected directly to a third transceiver in yet another node in the plurality of nodes that has an active wireline connection to the network service provider.

19-20 (canceled)

21. (canceled)

22. (original) The method of claim 18, wherein the wireless network is formed in accordance with IEEE 802.11 wireless connectivity standards.

23. (original) The method of claim 18, wherein providing the backup network connection includes authorizing a subscriber of the network with the network service provider.

24. (original) The method of claim 18, further comprising:
providing the backup network connectivity in response to a failed connection state of the wireline connection.

25. (original) The method of claim 24, further comprising:

monitoring the failed connection state of the wireline connection for renewed connectivity of the wireline connection; and
disconnecting from the backup network connectivity when the wireline connection is renewed.

26. (original) The method of claim 18, wherein the network service provider provides Internet connectivity or telephony services.

27. (original) The method of claim 18, wherein the wireline connection includes a fiber connection or a coaxial connection leading to a subscriber of the network service provider.

28. (previously presented) A network comprising:
wireline connections to a plurality of subscribers;
network interface units (NIUs) located at the plurality of subscribers, the NIUs each including:
a wireless transceiver configured to communicate with other NIUs; and
a switch coupled to the wireless transceiver and to one of the wireline connections, the switch providing data from the one of the wireline connections to a corresponding subscriber of the network during normal operation of the one of the wireline connections and the switch providing data from the wireless transceiver to the corresponding subscriber of the network

when connectivity on the one of the wireline connections fails due to a problem in a residence or place of business of said corresponding subscriber;

wherein the wireless transceiver is configured to relay data directly from another wireless transceiver in another NIU to which its respective one of said wireline connections has failed, the another wireless transceiver relaying said data directly from yet another wireless transceiver in yet another NIU that is wireline-connected to the wireline network.

29. (original) The network of claim 28, wherein the NIUs form a wireless ad-hoc network.

30. (original) The network of claim 28, wherein the NIUs each additionally include:

an antenna coupled to the wireless transceiver.

31. (original) The network of claim 28, wherein the wireless transceiver is configured to relay data from other wireless transceivers that have lost connectivity with the wireline connections.

32. (original) The network of claim 31, wherein the wireless transceiver relays the data from the other wireless transceivers that have lost connectivity by forwarding data units received from the other wireless transceivers through the switch and to the wireline network.

33. (canceled)

34. (previously presented)

A method for maintaining wireline communication comprising:

providing first wireline communication and first wireless communication between a first network subscriber and a network service provider;

providing second wireline communication and second wireless communication between a second network subscriber and said network service provider; and

providing, when said first wireline communication fails due to a problem inside premises of said first network subscriber, substitute wireline communication for said first network subscriber by way of said second wireline communication by wirelessly relaying data indirectly between two nodes through a third node associated with a third network subscriber with failed wireline communication, one of said two nodes located in or on said premises of said first network subscriber and the other of said two nodes located in or on premises of said second network subscriber, said other of said two nodes relaying said data with said network service provider over a wireline otherwise normally carrying only said second wireline communication, said one node having a first transceiver, said other node having a second transceiver and said third node having a third transceiver, wherein said wirelessly relaying data includes said first transceiver wirelessly communicating directly with said third transceiver and said third transceiver wirelessly communicating directly with said second transceiver.

35. (previously presented) A device for enabling connectivity between a network service provider and a wireline and wireless network, the device comprising:

a wireless transceiver;

a switch coupled to the wireless transceiver and to a wireline connected to said network service provider, the switch exchanging data with the network service provider over the wireline during normal operation and also exchanging other data with the network service provider over the wireline via the wireless transceiver when wireline connectivity of the other data to the network would otherwise be lost;

wherein the wireless transceiver is configured to exchange said other data from another wireless transceiver that has lost wireline connectivity to the network due to a problem in a home or place of business of a network subscriber associated with said another wireless transceiver, said another wireless transceiver being wirelessly connected directly to a third said wireless transceiver that has also lost wireline connectivity to the network, said third wireless transceiver being wirelessly connected directly to said wireless transceiver when said other data is being exchanged.

36. (previously presented) The network of claim 28 wherein:

said wireline connections are all connected to network control;

said wireless transceiver broadcasts a connect message to be received by at least a subset of said plurality of subscribers;

one subscriber in said subset is first in said subset to relay said received message to said network control via a wireline connection; and

said network control picks a transceiver included in an NIU of said one subscriber as said yet another wireless transceiver.